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# SB520 - SB5100

## Features

- Metal to silicon rectifier, majority carrier conduction.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Low power loss, high efficiency.
- High current capability, low  $V_F$ .
- High surge capacity.
- Glass passivated



## Schottky Rectifiers

### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value							Units
		520	530	540	550	560	580	5100	
$V_{RRM}$	Maximum Repetitive Reverse Voltage	20	30	40	50	60	80	100	V
$I_{F(AV)}$	Average Rectified Forward Current .375 " lead length @ $T_A = 75^\circ\text{C}$				5.0				A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave				150				A
$T_{stg}$	Storage Temperature Range				-50	to +150			$^\circ\text{C}$
$T_J$	Operating Junction Temperature				-50	to +150			$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

## Thermal Characteristics

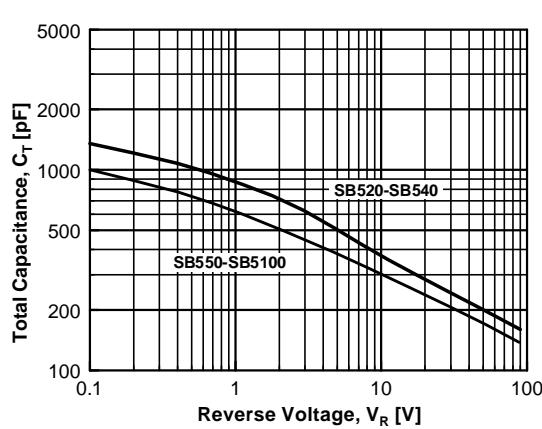
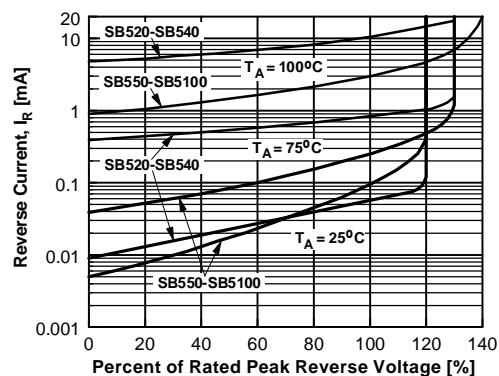
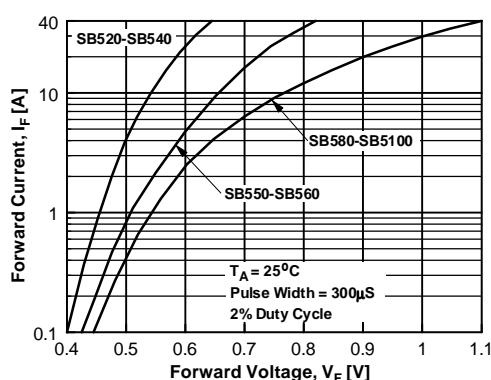
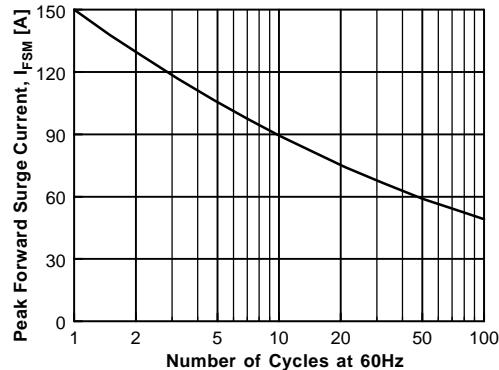
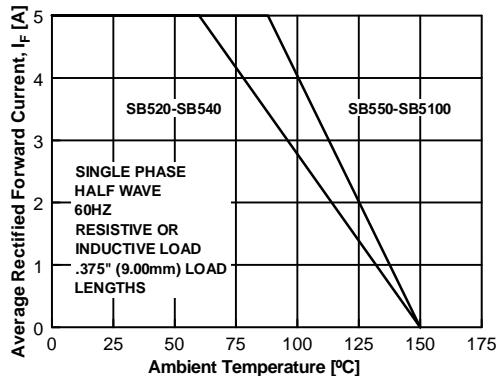
Symbol	Parameter	Value							Units
$P_D$	Power Dissipation				5.0				W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient				25				$^\circ\text{C}/\text{W}$

## Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Device							Units
		520	530	540	550	560	580	5100	
$V_F$	Forward Voltage @ 5.0 A	0.55			0.67			0.85	V
$I_R$	Reverse Current @ rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$				0.5				mA
		50			25				mA
$C_T$	Total Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$	500			380				pF

### Typical Characteristics



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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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